WATER SUPPLY OUTLOOK FOR MONTANA

U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

MONTANA AGRICULTURAL EXPERIMENT STATION

AS OF

FEB. 1, 1975

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

Cover Photo: Cabins near Sacajawea Snow Course in Bridger Mountains, Montana.
SCS PHOTO 1--P480-15

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

WATER SUPPLY OUTLOOK FOR MONTANA

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

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MONTANA WATER SUPPLY OUTLOOK
February 1, 1975

* *
* The early season snowpack increased substantially *
* last month and is near average over most of the *
* State. Below average conditions still are present *
* in the north central area east of the divide, in *
* extreme southern part of the State, and in the *
* Bridger Mountains. A small area of above average *
* snowpack occurs along the north slope of the Big *
* Horn, Absaroka, and Beartooth Mountains westward *
* to the northern part of the Gallatin Range. In *
* some areas, snow conditions show large changes in *
* short distances. Many areas have deficient soil *
* moisture below the snowpack. Near average moisture *
* conditions exist in most of the Missouri and *
* Kootenai River drainages. Streamflow forecasts are *
* generally in the near average bracket. Below aver- *
* age runoff is expected from drainages in the *
* Flathead, Lower Clark Fork, Beaverhead, Ruby, *
* Dearborn, Sun, Teton, and Marias Rivers. *
* *

COLUMBIA RIVER DRAINAGE

Snow - Nearly all drainages now have snowpack within 10 percent of average as the result of good snowfall in the mountains during January. The area along the continental divide in the Flathead River drainage still has below average snowpack. Snow is presently light density resulting from recent snowfall and absence of warm air temperatures.

Soils beneath the snow are drier than normal and will require some snowmelt water for recharging.

Streamflow - Only major streams are forecast this month. Near to a little below average spring and summer runoff is expected from Kootenai, Clark Fork, Blackfoot, and Bitterroot River drainages. The Flathead drainages are predicted to have 10 to 12 percent below average runoff.

MISSOURI RIVER DRAINAGE

Snow - The extreme headwaters of the Red Rock, Madison, and Gallatin River drainages have below average snowpack as well as headwater areas of Dearborn, Sun, Teton, Marias, and Milk River drainages. A small area of above average snow is reported south of Bozeman along the north end of the Gallatin Range. Other headwater areas have near average water stored in the snowpack.

Soils under the snowpack are generally drier than usual in headwaters of the northern drainages improving to near average in southern watersheds.

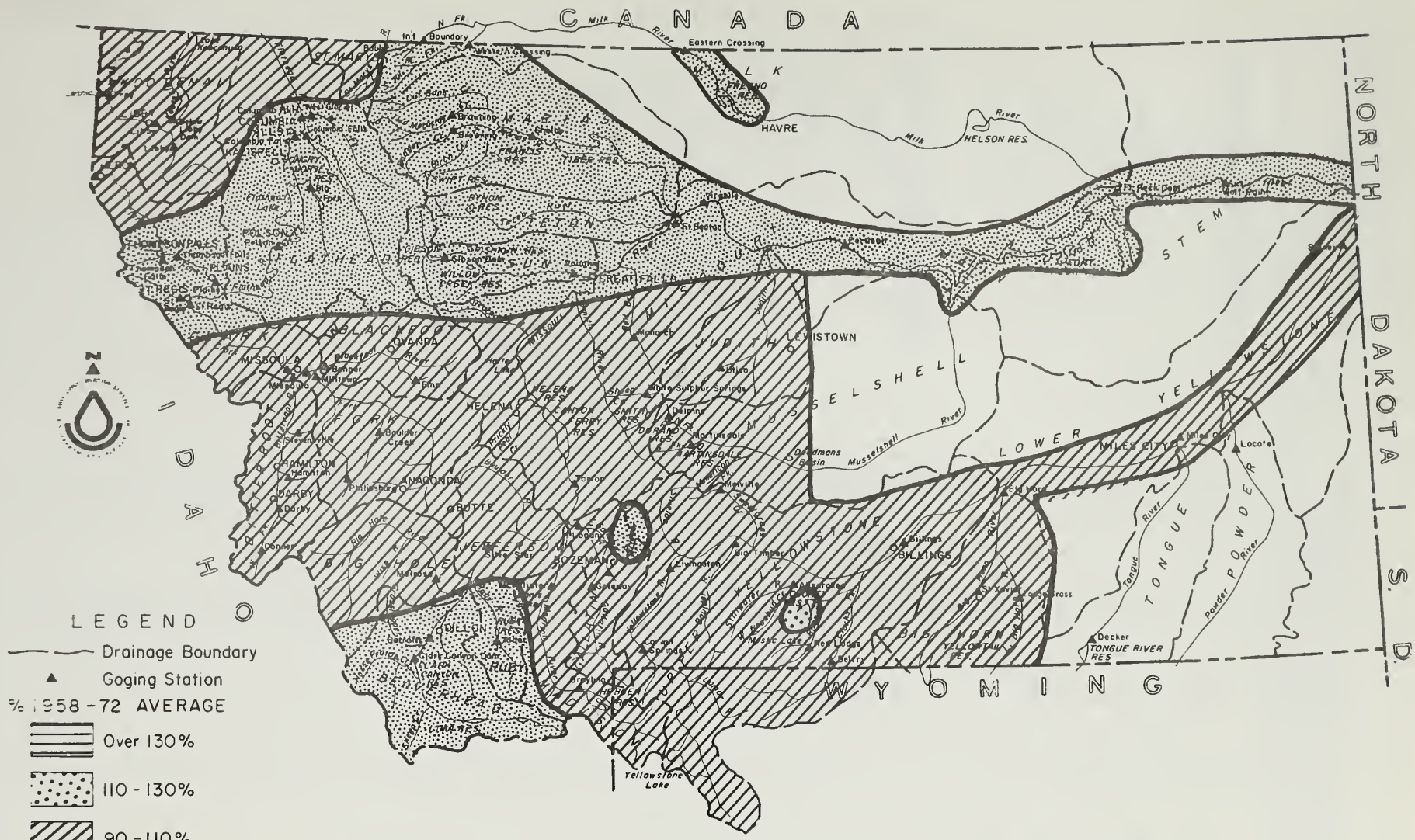
Streamflow - Forecasts for major streams are below average for spring and summer runoff in Red Rock, Ruby, and Bridger Creek drainages in southwest Montana and all watersheds north of the Dearborn River. Other streams are expected to generate near average runoff.

YELLOWSTONE RIVER DRAINAGE

Snow - Sharp differences in snowpack exist between below average headwaters of Yellowstone and above average north and east slopes of Absaraka and Beartooth Mountains. In Wyoming, the snow conditions in the Big Horn drainage are also highly variable. The north end of the Big Horn Mountains have above average snowpack.

Soils under the snowpack generally contain near average moisture except for below average conditions in extreme headwaters of Yellowstone and Clarks Fork Rivers. Valley soils are generally wetter than usual.

Streamflow - Forecasts for major streams in the Yellowstone River drainage are generally for near or a little below average spring and summer runoff.



PROSPECTIVE STREAMFLOW FORECASTS

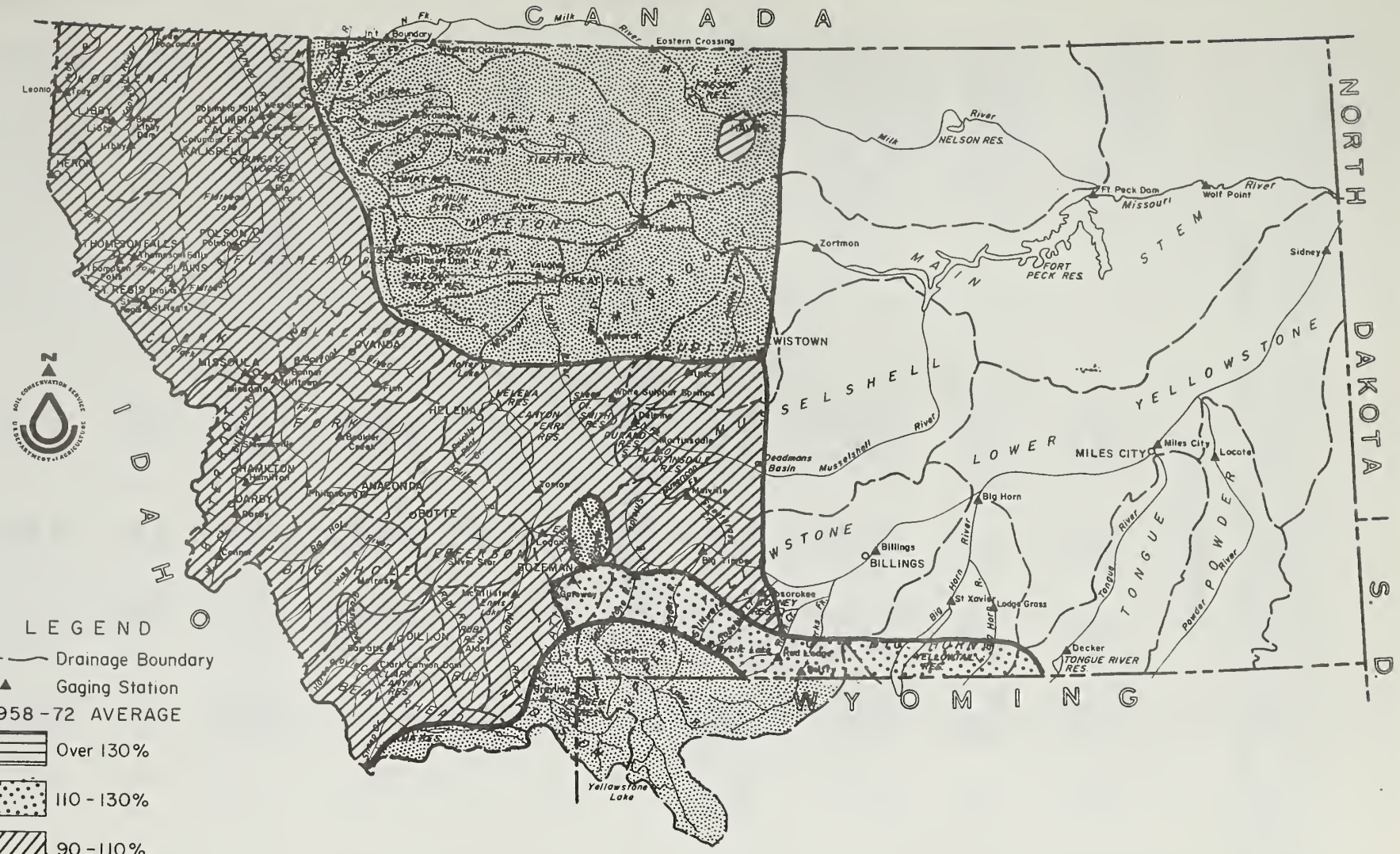
AS OF

FEBRUARY 1, 1975

M7-0-21138A-L

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF:	
		Last Year	Average
COLUMBIA RIVER DRAINAGE			
Kootenai	9	75	91
Flathead	8	71	86
Upper Clark Fork	17	93	104
Lower Clark Fork	6	80	94
Bitterroot	4	84	108
MISSOURI RIVER DRAINAGE			
Jefferson	18	88	92
Madison	12	69	79
Gallatin	9	107	102
Missouri Main Stem	7	101	102
Judith-Musselshell	4	100	102
Marias-Teton-Sun	3	105	80
Milk (Headwaters)	1	105	84
YELLOWSTONE RIVER DRAINAGE			
Yellowstone (above Big Horn)	13	78	84
Little Big Horn	7	198	132



MOUNTAIN SNOW WATER EQUIVALENT
AS OF
FEBRUARY 1, 1975

M7-0-21138B-L

SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average +
COLUMBIA RIVER BASIN							
Kootenai							
Baree Trail	3800	48	7.5	-	-	6.4	-
Murphy Lake R. S.	3000	48	22.6	2/3	19.0	20.3	19.5
Raven	3050	48	23.0	1/31	15.8	16.9	19.3
Flathead							
Desert Mountain	5600	54	8.4	1/30	5.5	9.0	7.1
Marias Pass	5250	54	6.5	1/26	3.9	5.8	5.1
Clark Fork							
Black Pine	7100	48	10.0	2/1	7.3	8.3	7.5
Lubrecht Forest	4100	48	26.8	2/4	15.0	15.4	15.2
Seeley Lake R. S.	4030	48	11.9	2/3	7.7	10.0	7.5
Skalkaho Summit	7260	48	10.8	-	-	-	-
Bitterroot							
Gibbons Pass	7100	48	7.1	1/30	3.4	5.5	4.9
Lolo Pass	5250	48	10.6	1/30	3.8	6.9	6.1
MISSOURI RIVER BASIN							
Beaverhead							
Lakeview	6700	48	15.3	1/31	8.2	17.0	9.1
Madison							
West Yellowstone	6700	48	6.5	1/31	1.7	2.9	2.7
Gallatin							
Bridger Bowl	7250	48	17.0	1/28	15.0	15.2	15.9
College Site No. 2	4856	54	17.7	1/31	15.2	16.6	13.0
Lick Creek	6860	48	18.8	-	-	14.4	16.5
Twenty-One Mile	7150	48	10.0	1/31	3.0	7.8	4.9
Missouri Main Stem							
Kings Hill	7420	48	11.8	1/30	7.1	8.4	6.7
Stemple Pass	6350	48	5.9	1/30	3.5	5.3	4.0
Milk							
Beaver Creek	3950	48	20.9	-	-	7.8	7.6
Rocky Boy	4700	36	10.1	1/30	8.2	9.2	7.0
Yellowstone							
Battle Ridge	6020	48	17.6	1/28	14.7	13.9	13.0
Northeast Entrance	7350	48	9.4	-	-	5.8	6.2
PMC Dryland	3700	48	20.7	1/27	6.4	6.8	-

+ Average for period of record.

RESERVOIR STORAGE (Thousand Acre Feet) END OF MONTH

Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average
COLUMBIA RIVER BASIN					
Kootenai	Koocanusa	5,694.0	2,145.0	2,176.0	-
Flathead	Hungry Horse	3,428.0	1,990.0	2,508.0	2,484.0
	Flathead Lake	1,791.0	1,085.0	1,396.0	1,246.0
	Camas (4)	45.2	17.8	14.9	23.0
	Mission Valley (8)	100.3	30.4	42.0	33.2
Clark Fork	Georgetown Lake	31.0	25.0	20.7	27.0
	Lower Willow Creek	4.6	1.3	2.5	1.2
	Nevada Creek	12.6		-	4.8
	Noxon Rapids	334.6	313.1	305.6	320.8
Bitterroot	Como	34.9		-	11.0
	Painted Rocks	31.7	0	0	22.0
MISSOURI RIVER BASIN					
Beaverhead	Clark Canyon	328.9	107.5	141.6	140.6
	Lima	84.0	43.5	48.7	31.6
Ruby	Ruby	38.8		26.0	23.4
Madison	Hebgen Lake	377.5	249.5	229.8	201.5
	Ennis Lake	41.0	33.9	35.5	37.7
Gallatin	Middle Creek	8.0	4.2	3.9	3.3
Missouri	Canyon Ferry	2,043.0	1,543.0	1,664.0	1,639.0
	Hauser & Helena	61.9	63.6	62.5	58.0
	Lake Helena	10.4	11.1	10.7	9.2
	Holter Lake	81.9	79.9	80.3	61.8
	Smith River	10.7		2.6	5.8
	Bair	7.0		2.2	4.2
	Martinsdale	23.1		6.5	7.5
	Deadman's Basin	72.2		33.5	43.6
	Fort Peck Lake	19,410.0	15,970.0	15,600.0	13,220.0
Sun	Gibson	105.0	58.7	27.9	39.1
	Willow Creek	32.3		19.6	18.9
	Pishkun	32.0		3.6	17.5
Marias	Lower Two Medicine	16.6		-	-
	Four Horns	19.2		-	-
	Swift	30.0	9.0	10.7	16.2
	Lake Frances	112.0	30.7	34.4	78.0
	Tiber	1,347.0	497.2	524.8	577.1
Milk	Beaver Creek	3.5	1.6	0	-
	Fresno	127.2	83.1	12.1	56.2
	Nelson	66.8	47.9	19.9	42.6
	Lake Sherburne	66.1	16.9	35.2	18.5
Yellowstone	Mystic Lake	20.8	7.7	12.7	10.9
	Tongue River	68.0		28.2	27.8
	Cooney	27.5	12.2	12.2	13.8
Big Horn	Big Horn	1,356.0	826.5	939.8	792.5

USBR BCS PORTLAND OREGON 1974 M7-0-22024-8F

Average based on 1958-72 period.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average
COLUMBIA RIVER BASIN					
KOOTENAI RIVER					
Below Libby Dam	6,900	95	Apr-Sept	9,506	7,456
Libby (near)(2)	5,950	93	Apr-July	8,320	6,417
	4,650	93	Apr-June	6,384	5,011
KOOTENAI RIVER					
Leonia (at)(2)	8,400	93	Apr-Sept		9,073
	7,400	93	Apr-July		7,957
	6,000	93	Apr-June		6,431
BLACKFOOT RIVER					
Bonner (near)	950	92	Apr-Sept		1,031
	850	91	Apr-July		934
	740	91	Apr-June		814
CLARK FORK RIVER					
Milltown (above)(4)	790	100	Apr-Sept		792
	700	101	Apr-July		690
	600	102	Apr-June		590
CLARK FORK RIVER					
Missoula (above)	1,740	95	Apr-Sept	2,016	1,823
	1,550	95	Apr-July	1,831	1,624
	1,340	95	Apr-June	1,595	1,404
BITTERROOT RIVER					
Darby (near)	580	99	Apr-Sept	732	584
	540	100	Apr-July	670	542
	480	100	Apr-June	589	479
BITTERROOT RIVER					
Missoula (at)(6)	1,450	95	Apr-Sept		1,527
	1,350	96	Apr-July		1,412
	1,180	95	Apr-June		1,236
CLARK FORK RIVER					
Missoula (below)	3,190	95	Apr-Sept		3,350
	2,900	96	Apr-July		3,036
	2,520	95	Apr-June		2,640
CLARK FORK RIVER					
St. Regis (at)	4,200	93	Apr-Sept	5,824	4,507
	3,850	94	Apr-July	5,358	4,087
	3,300	93	Apr-June	4,633	3,563
NORTH FORK FLATHEAD RIVER					
Columbia Falls (near)	1,800	90	Apr-Sept		1,991
	1,650	91	Apr-July		1,813
	1,400	90	Apr-June		1,551

(2) Adjusted for storage in Lake Koocanusa.
(4) Difference in observed flow Clark Fork above Missoula and Blackfoot near Bonner.
(6) Difference in observed flow Clark Fork above and below Missoula.

Average based on 1958-72 period.

USDA-SCS PORTLAND OREGON-197 M7-O-22024-3F

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average
MIDDLE FORK FLATHEAD RIVER					
West Glacier (near)	1,700	89	Apr-Sept	2,601	1,917
	1,560	88	Apr-July	2,413	1,768
	1,340	88	Apr-June	1,973	1,514
SOUTH FORK FLATHEAD RIVER					
Columbia Falls (near)(7)	2,120	89	Apr-Sept	3,092	2,378
	2,000	89	Apr-July	2,946	2,240
	1,750	88	Apr-June	2,496	1,984
FLATHEAD RIVER					
Columbia Falls (at)(7)	5,700	89	Apr-Sept	8,649	6,421
	5,350	90	Apr-July	8,056	5,942
	4,650	90	Apr-June	6,667	5,151
FLATHEAD RIVER					
Polson (near)(8)	6,700	88	Apr-Sept	10,341	7,648
	6,200	88	Apr-July	9,718	7,082
	5,300	87	Apr-June	8,062	6,113
CLARK FORK RIVER					
Plains (near)(8)	11,300	90	Apr-Sept	16,349	12,601
	10,300	89	Apr-July	15,128	11,523
	8,800	89	Apr-June	12,596	9,934
CLARK FORK RIVER					
Whitehorse Rapids (at)(9)	12,600	89	Apr-Sept		14,082
	11,500	89	Apr-July		12,852
	9,800	88	Apr-June		11,092

(7) Adjusted for storage in Hungry Horse Reservoir.
(8) Adjusted for storage in Hungry Horse Reservoir and Flathead Lake.
(9) Adjusted for storage in Hungry Horse, Flathead Lake and Noxon Rapids Reservoirs.

Average based on 1958-72 period.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average
MISSOURI RIVER BASIN					
BEAVERHEAD RIVER					
Grant (near)(11)(12)	120	83	Apr-Sept	151	145
	105	83	Apr-July	116	127
RUBY RIVER					
Alder (near)	84	89	Apr-Sept		93.9
	70	88	Apr-July		79.4
BIG HOLE RIVER					
Melrose (near)	670	90	Apr-Sept		748
	620	89	Apr-July		694
MADISON RIVER					
Grayling (near)(13)	450	94	Apr-Sept	605	480
	355	95	Apr-July	486	374
MADISON RIVER					
McAllister (near)(14)	800	97	Apr-Sept	1,025	828
	640	98	Apr-July	840	652
GALLATIN RIVER					
Gateway (near)	530	100	Apr-Sept		531
	450	100	Apr-July		451
GALLATIN RIVER					
Logan (at)	560	98	Apr-Sept		573
	475	98	Apr-July		487
MISSOURI RIVER					
Toston (at)(16)	2,250	92	Apr-Sept	2,742	2,432
	1,940	92	Apr-July	2,410	2,109
SUN RIVER					
Gibson Dam (at)(17)	470	80	Apr-Sept	624	590
	430	79	Apr-July	569	541
MISSOURI RIVER					
Fort Benton (at)(18)	3,250	88	Apr-Sept		3,690
	2,770	89	Apr-July		3,123
MARIAS RIVER					
Shelby (near)(20)	450	80	Apr-Sept	554	559
	430	80	Apr-July	518	538

(11) Adjusted for storage in Lima Reservoir.
(12) Adjusted for storage in Clark Canyon Reservoir.
(13) Adjusted for storage in Hebgen Lake.
(14) Adjusted for storage in Hebgen and Ennis Lakes.
(16) Adjusted for storage in Hebgen and Ennis Lakes and Clark Canyon Reservoir.
(17) Adjusted for storage in Gibson Reservoir and diversions.
(18) Adjusted for storage in Canyon Ferry Reservoir.
(20) Adjusted for storage in Two Medicine, Four Horns, Lake Frances and Swift Reservoirs.

Average based on 1958-72 period.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average
MISSOURI RIVER					
Virgelle (at)(21)	3,800	88	Apr-Sept		4,342
	3,250	87	Apr-July		3,742
MISSOURI RIVER					
Landusky (near) (21)	4,100	87	Apr-Sept		4,739
	3,550	87	Apr-July		4,068
MISSOURI RIVER					
Fort Peck Dam (below)(22)	3,950	86	Apr-Sept		4,598
	3,500	86	Apr-July		4,069
MISSOURI RIVER					
Wolf Point (near)(22)	4,300	88	Apr-Sept		4,898
	3,800	87	Apr-July		4,361
MISSOURI RIVER					
Williston, N.D. (near)(29)	11,778	92	Apr-Sept		11,778
	10,437	93	Apr-July		10,437

SASKATCHEWAN RIVER BASIN

ST. MARY RIVER					
Babb (near)(30)	440	90	Apr-Sept		490
	380	90	Apr-July		420

(21) Adjusted for storage in Canyon Ferry and Tiber Reservoirs.
(22) Adjusted for storage in Canyon Ferry, Tiber and Fort Peck Reservoirs.
(29) Adjusted for storage in Canyon Ferry, Tiber, Fort Peck, Buffalo Bill, Boysen, and Yellowtail Reservoirs. Sum Yellowstone River near Sidney and Missouri River near Culbertson.
(30) Adjusted for storage in Lake Sherburne.

Average based on 1958-72 period.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average
YELLOWSTONE RIVER BASIN					
YELLOWSTONE RIVER					
Corwin Springs (at)	1,860	93	Apr-Sept	2,720	1,996
	1,560	94	Apr-July	2,335	1,662
YELLOWSTONE RIVER					
Livingston (near)	2,220	96	Apr-Sept		2,317
	1,850	96	Apr-July		1,926
BOULDER RIVER					
Big Timber (at)	355	94	Apr-Sept		379
	330	94	Apr-July		350
STILLWATER RIVER					
Absarokee (near)(25)	590	100	Apr-Sept		591
	500	101	Apr-July		494
CLARKS FORK RIVER					
Belfry (near)	580	96	Apr-Sept		607
	530	97	Apr-July		546
ROCK CREEK					
Red Lodge (near)	104	95	Apr-Sept	138	110
	80.0	95	Apr-July	117	84.0
YELLOWSTONE RIVER					
Billings (at)	4,200	99	Apr-Sept	5,449	4,246
	3,590	99	Apr-July	4,659	3,613
BIG HORN RIVER					
St. Xavier (near)(26)	1,700	92	Apr-Sept		1,849
	1,580	93	Apr-July		1,706
YELLOWSTONE RIVER					
Miles City (at)(27)	6,100	96	Apr-Sept		6,378
	5,350	96	Apr-July		5,555
YELLOWSTONE RIVER					
Sidney (near)(27)	6,400	96	Apr-Sept		6,665
	5,700	97	Apr-July		5,895

(25) Adjusted for storage in Mystic Lake.
(26) Adjusted for storage in Buffalo Bill, Boysen, Bull Lake, and Yellowtail Reservoirs.
(27) Adjusted for storage in Buffalo Bill, Boysen, and Yellowtail Reservoirs.

Average based on 1958-72 period.

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Elevation	THIS YEAR Date of Survey	Snow Depth (Inches)	Water Content (Inches)	PAST RECORD Water Content (inches) Last Year	Average
ARCH FALLS	7350	1/29	42	11.2	8.2	8.7
BADGER PASS	6900	1/30	80	24.0	-	30.3
BATTLE RIDGE	6020	1/28	29	5.8	6.2	6.5
BEAR PAW SKI AREA	5200	1/30	21	4.6	3.9	4.7
BIG SKY M.V.	7450	1/29	38	9.5	14.4	-
BIG SPRINGS (ID)	6500	1/30	42	10.5	18.2	14.4
BLACK BEAR	7950	1/30	70	20.7	40.9	-
BLACK BEAR PILLOW	7950	1/30	SP	18.4	36.3	-
BLACK CANYON (ID)	7850	1/27	68	18.0	28.5	24.3
BLACK MOOSE (ID)	8120	1/27	68	20.7	35.7	25.4
BLACK PINE	7100	2/01	41	9.9	12.6	7.6
BLACK PINE PILLOW	7100	2/01	SP	10.3	11.2	9.4
BLUE LAKE	5900	1/30	55	15.5	-	20.0
BOW RIVER #1 (AL)	5100	1/29	27	6.3	7.3	6.5
BRIDGER BOWL	7250	1/28	59	15.6	20.0	20.4
BRIDGER BOWL PILLOW	7250	1/28	SP	14.7	19.7	18.9
BULL MOUNTAIN	6600	2/03	25	5.0	5.8	-
CAMP CREEK (ID)	6800	1/30	24	5.7	6.9	7.4
CANYON (WY)	7750	2/01	36	8.6	10.8	10.7
CHATEAU LAWN #8 (AL)	5700	1/29	32	7.3	11.0	7.3
CHESSMAN RESERVOIR	6200	1/30	19	3.3	1.2	2.5
COLE CREEK	7850	1/31	57	16.4	-	-
COLE CREEK PILLOW	7850	1/31	SP	13.9	-	-
COMBINATION	5600	2/01	22	3.8	6.0	5.6
COMBINATION PILLOW	5600	2/01	SP	4.7	5.0	-
COOKE STATION	8150	1/27	52	13.6	15.2	-
COPPER MOUNTAIN	7700	1/31	39	9.0	9.3	8.0
COYOTE HILL	4200	2/03	37	9.4	8.6	8.3
DALY CREEK	5780	2/03	38	9.4	-	-
DEADMAN CREEK	6450	1/30	36	9.4	8.2	8.1
DEADMAN CREEK PILLOW	6450	1/30	SP	8.6	8.6	8.1
DESERT MOUNTAIN	5600	1/30	33	9.1	14.6	11.9
DEVILS SLIDE	8100	1/29	67	18.2	15.2	15.3
DISCOVERY BASIN	7050	1/31	33	8.9	-	-
DIX HILL	6400	2/01	29	7.0	8.0	-
FISHER CREEK	9100	1/27	85	19.3	33.1	24.8
FISHER CREEK PILLOW	9100	1/27	SP	22.4	31.5	25.5
FLEECER RIDGE	7500	2/03	34	8.4	7.4	-
FROHNER MEADOWS	6480	1/30	32	6.5	7.1	-
FROHNER MEADOWS PILLOW	6480	1/30	SP	6.5	6.7	-
GIBBONS PASS	7100	1/30	72	17.6	19.7	16.0
GRIZZLY PEAK	8400	1/31	53	14.8	6.2	11.6
HEART LAKE TRAIL	4800	1/28	61	16.9	19.1	17.6
HEBGEN DAM	6550	2/01	37	8.3	9.8	8.2
HELL ROARING DIVIDE	5770	2/03	83	25.2	34.1	23.3
HOLBROOK	4530	1/30	36	9.0	-	8.0
HOOD MEADOW	6600	1/29	36	9.8	6.4	7.9
HOODOO BASIN	6000	1/28	108	34.6	46.0	37.9

Average based On 1958-72 period. A - Aerial observation; water content estimated.
SP - Snow Pillow observation; water content only.

SNOW

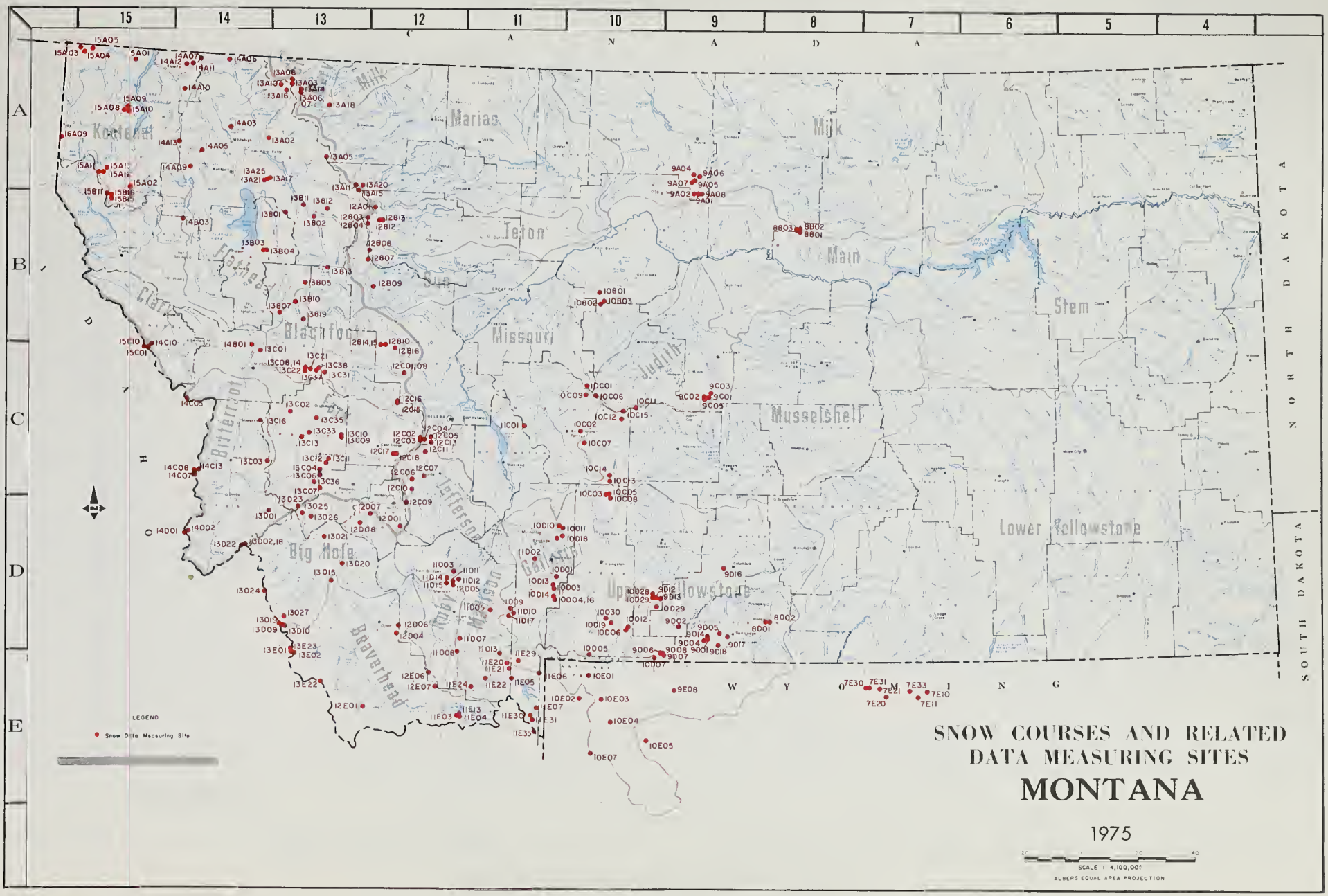
DRAINAGE BASIN and/or SNOW COURSE NAME	Elevation	THIS YEAR: Date of Survey	THIS YEAR: Snow Depth (Inches)	THIS YEAR: Water Content (Inches)	PAST RECORD: Water Content (inches) Last Year	PAST RECORD: Water Content (inches) Average
HOODOO CREEK	5900	1/28	103	31.3	41.9	35.5
INTERGAARD	6450	2/01	27	5.9	7.8	6.0
ISLAND PARK (ID)	6310	1/30	41	9.2	13.3	11.6
KILGORE (ID)	6200	2/03	38	10.9	8.3	7.9
KIWANIS CAMP	3720	1/29	12	2.1	.1	-
LAKE CAMP (WY)	7850	1/31	26	4.9	6.6	6.0
LAKE CREEK	6100	2/03	29	6.5	6.0	4.9
LAKEVIEW CANYON	6930	1/31	26	6.4	7.6	9.8
LAKEVIEW RIDGE	7400	1/31	23	5.4	7.0	8.8
LATHAM SPRINGS (ID)	7650	1/27	62	17.0	28.0	24.0
LICK CREEK	6860	1/29	37	8.6	4.5	6.6
LICK CREEK PILLOW	6860	1/29	SP	7.6	3.5	6.1
LOLO PASS (ID)	5230	1/28	78	22.4	26.2	22.9
LONE MOUNTAIN	8880	1/29	57	16.4	-	-
LOOKOUT (ID)	5250	1/31	82	27.2	32.0	26.7
LUBRECHT FLUME	4800	1/29	27	5.5	6.0	5.6
LUBRECHT HYDROPLOT	4200	1/29	23	5.0	6.1	5.1
LUPINE CREEK (WY)	7300	2/02	25	5.5	8.2	7.7
MADISON PLATEAU	7750	1/30	42	11.1	19.0	15.4
MADISON PLATEAU PILLOW	7750	1/30	SP	12.0	21.4	16.6
MARIAS PASS	5250	1/29	42	11.1	10.6	13.2
MAYNARD CREEK	6210	1/28	43	10.4	12.0	13.7
MAYNARD CREEK PILLOW	6210	1/28	SP	7.6	6.2	8.8
MIRROR LAKE #6 (AL)	6600	1/29	28	7.2	10.7	8.4
MOUNT LOCKHART	6400	1/31	50	14.4	20.6	-
MT. EISENHOWER #10 (AL)	5000	1/30	20	3.8	5.8	4.1
NEW WORLD	6900	1/28	47	12.6	9.8	10.2
NEZ PERCE CREEK	6500	1/31	26	5.4	6.6	5.4
NOISY BASIN	6040	1/31	98	31.0	-	-
NOISY BASIN PILLOW	6040	1/31	SP	25.4	-	-
NOISY CREEK	3600	1/31	16	4.4	-	-
NORRIS BASIN (WY)	7500	2/02	33	7.0	8.7	8.0
NORTH FK. ELK CREEK	6250	2/02	39	10.0	10.4	8.6
OPHIR PARK	7150	2/01	44	12.2	14.0	-
PETERSON MEADOWS	7200	2/03	29	6.3	5.7	-
PETERSON MEADOWS PILLOW	7200	2/03	SP	7.0	6.9	-
PICKET PIN LOWER	6200	2/03	14	3.6	.0	-
PICKET PIN MIDDLE	7250	2/02	44	13.4	5.8	-
PICKET PIN UPPER	8100	2/02	55	17.4	12.4	-
PICNIC GROUNDS	6200	1/31	17	3.4	4.9	3.0
PIPESTONE PASS	7200	1/31	22	4.7	3.3	3.8
PIPESTONE UPPER #2 (AL)	5300	1/30	24	5.7	7.9	6.3
ROCKER PEAK	8000	1/30	43	10.6	11.4	11.1
ROCKER PEAK PILLOW	8000	1/30	SP	10.3	11.3	11.4
ROCKY BOY	4700	1/30	17	3.0	2.9	3.4
ROCKY BOY PILLOW	4700	1/30	SP	2.5	1.7	3.8
SADDLE MOUNTAIN	7940	1/30	79	19.8	22.0	18.4
SADDLE MOUNTAIN PILLOW	7940	1/30	SP	21.1	23.7	19.1
SAWTELL MOUNTAIN (ID)	8710	1/30	50	12.9	31.0	26.1
SHOWER FALLS	8100	1/29	70	19.4	16.1	16.6

Average based On 1958-72 period. A - Aerial observation; water content estimated.
SP - Snow Pillow observation; water content only.

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Elevation	THIS YEAR: Date of Survey	THIS YEAR: Snow Depth (Inches)	THIS YEAR: Water Content (Inches)	PAST RECORD: Water Content (inches) Last Year	PAST RECORD: Water Content (inches) Average
SHOWER FALLS PILLOW	8100	1/29	SP	19.0	15.2	16.7
SPOTTED BEAR MOUNTAIN	7000	1/30	54	13.5	-	11.4
SPUR PARK	8000	1/30	55	15.8	17.1	16.7
SPUR PARK PILLOW	8100	1/30	SP	15.8	17.4	16.4
STORM LAKE	7780	1/30	38	8.1	9.0	9.5
STUART MILL	6500	2/01	24	5.0	5.8	4.8
SUCKER CREEK	3960	1/30	0	.0	.2	1
SUGARLOAF	7350	1/29	30	6.0	-	-
SYLVAN PASS (WY)	7100	2/01	36	8.4	11.2	9.4
TARGHEE PASS (ID)	7000	1/30	33	6.9	8.7	12.0
TAYLOR ROAD	4080	1/30	15	2.9	.2	-
TEN MILE LOWER	6600	1/31	28	5.8	5.6	5.4
TEN MILE MIDDLE	6800	1/31	38	9.0	8.6	8.2
TEN MILE UPPER	8000	1/31	40	9.2	10.4	10.1
TEPEE CREEK	8000	2/03	52	12.0	11.4	11.7
TEPEE CREEK PILLOW	8000	2/03	SP	9.1	10.5	-
THUMB DIVIDE (WY)	7900	1/30	38	8.3	15.8	15.4
TV MOUNTAIN	6800	1/31	47	12.8	16.4	13.2
TWELVEMILE CREEK	5600	1/29	68	18.8	25.4	15.6
TWELVEMILE CREEK PILLOW	5600	1/29	SP	16.0	21.0	13.4
TWENTY-ONE MILE	7150	2/01	52	10.4	15.6	12.7
TWIN CREEKS	3580	1/30	41	10.5	-	9.8
VALLEY VIEW (ID)	6500	1/30	33	7.7	10.2	12.3
WALDRON	5600	1/03	26	6.0	8.4	-
WALDRON PILLOW	5600	1/03	SP	7.4	9.7	9.9
WEST YELLOWSTONE	6700	2/01	29	5.9	10.2	8.2
WEST YELLOWSTONE PILLOW	6700	1/31	SP	4.0	7.4	6.6
WHISKEY CREEK	6800	1/30	41	11.2	17.6	-
WHISKEY CREEK PILLOW	6800	1/30	SP	8.7	15.0	-
WHITE ELEPHANT (ID)	7700	1/30	41	10.0	23.5	-
WHITE MILL	8700	1/27	69	17.2	24.0	-
WHITE MILL PILLOW	8700	1/27	SP	15.3	21.0	-
WILLOW CREEK	6500	1/31	34	7.6	-	-
WOLVERINE (WY)	7650	1/30	42	10.2	8.6	-
LATE ARRIVING DATA						
Big Coulee	5100	1/31	19	4.1	4.3	-
Carrot Basin	9000	2/05	80	23.2	30.2	27.9
Highwood Divide	5650	1/31	27	6.5	8.1	-
Highwood Station	4600	1/31	14	3.2	2.2	-
Hoodoo Basin Pillow	6000	1/31	SP	32.4	-	36.1
Northeast Entrance	7400	2/02	32	7.3	6.5	6.6
Picket Pin D	9450	1/28	84	26.0	-	-
Placer Basin F	8800	1/28	72	21.5	-	-

Average based On 1958-72 period. A - Aerial observation; water content estimated.
SP - Snow Pillow observation; water content only.



SNOW COURSES AND RELATED DATA MEASURING SITES

MONTANA

1975

INDEX to MONTANA SNOW COURSES and DATA SITES

SNOW COURSES

COLUMBIA RIVER BASIN

KOOTENAI RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Bald Eagle Peak	15A11	5700	6	27N	31W		3,4,5,5½,6	1
Banfield Mountain	15A08	5600	4	32N	30W	S,P	2,3,4,5,5½,6	1
Baree Creek	15B11	5500	36	26N	31W		3,4,5,5½	2
Baree Midway	15B16	4600	31	26N	30W		3,4,5,5½	2
Peree Trail	15B15	3800	5	25N	30W	N	3,4,5,5½	2
arlaton Creek	15A10	3900	2	32N	30W		2,3,4,5,5½,6	1
Brush Creek Timber	14A13	5000	12	30N	26W		3,4,5	1,2
Cedar Grove	15A13	4100	35	28N	31W		2,3,4,5,5½,6	1
Davis Creek	15A04	5400	20	37N	33W		2,3,4,5,5½,6	1
Carver Creek	15A05	4250	18	37N	32W	S,P	2,3,4,5,5½,6	1
Graves Creek	14A11	4300	1	36N	25W		3,4,5,5½,6	1
Hawkins Lake	15A03	6450	18	37N	33W	S,P	2,3,4,5,5½,6	1
heeler Creek	16A09	3300	25	30N	35W		3,4,5	1
Lost Soul	15A09	4800	31	33N	29W		2,3,4,5,5½,6	1
Murphy Lake R. S.	14A10	3000	5	34N	25W	M,NSC	Monthly	2
Poorman Creek	15A12	5100	5	27N	31W	S,P	2,3,4,5,5½,6	1
Raven	15A02	3050	2	26N	29W	M,NSC	Monthly	2
Red Mountain	15A01	6000	4	36N	29W		3,4,5,5½,6	2
Stahl Peak	14A12	6050	5	36N	25W		3,4,5,5½,6	1
Weasel Divide	14A07	5450	20	37N	24W		3,4,5,5½,6	1

FLATHEAD RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Basoo Peak	14B03	5150	11	24N	25W		3,4,5	3
Beaver Lake	13A11	5900	31	28N	11W		3,4,5	1
Big Creek	13B03	6750	7	22N	18W		3,4,5, 6	1,5
Camp Misery	13A17	6400	30	28N	18W		3,4,5	1,2
Desert Mountain	13A02	5600	24	31N	19W	M	1,2,3,4,5, 6	1,2
Fatty Creek	13B04	5500	8	22N	18W		3,4,5, 6	1,5
Flattop Mountain	13A19	6300	12	35N	18W	S,P	4	1,6
Griffin Creek Divide	14A09	5150	11	28N	25W		3,4,5	5
Gunsight Lake	13B12	6300	30	26N	13W		3,4,5	1
Hell Roaring Divide	14A03	5770	35	32N	22W		1,2,3,4,5,5½,6	2
Holbrook	13B13	4530	18	21N	13W	A	1,2,3,4,5	1
Klahanehn	14A06	3780	14	37N	22W		3,4	6
Logan Creek	14A05	4300	34	30N	24W		3,4,5	1,2
Mineral Creek	13A16	4000	29	35N	17W		3,4,5	6
Noisy Basin	13A15	6040	25	28N	19W	S,P,M	3,4,5	1,2
Noisy Creek	13A21	3600	35	28N	19W		3,4,5	1,2
North Fork Jocko	13N07	6330	3	17N	17W		3,4,5,5½,6	1,5
Spotted Bear Mountain	13B02	7000	23	25N	15W	A	1,2,3,4,5	1
Trinkus Lake	13B01	6100	9	25N	17W		3,4,5	1
Twin Creeks	13B11	3580	25	26N	16W	A	1,2,3,4,5	1
Upper Holland Lake	13N05	6200	28	20N	15W		3,4,5	1

CLARK FORK RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Black Pine	13C13	7100	26	8N	15W	S,P,M	1,2,3,4,5,5½,6	1
Combination	13C33	5600	7	8N	14W	S,P	1,2,3,4,5,5½,6	1
Copper Bottom	12B16	5200	15	15N	8W		3,4,5	1,2
Copper Camp	12B14	6950	3	15N	9W		3,4,5	1,2
Copper Creek	12B10	5700	1	15N	9W		3,4,5	1,2
Copper Lake Creek	12B15	6100	3	15N	9W		3,4,5	1,2
Cottonwood Creek	12C17	6400	14	7N	8W		3,4	2
Coyote Hill	13B10	6200	12	18N	16W		1,2,3,4,5	1,2
Dix Hill	12C15	6400	24	11N	8W	P	1,2,3,4,5	11
El Dorado Mine	13C09	7800	23	8N	12W		3,4	1
Fred Burr Pass	13C11	8000	12	6N	13W		3,4,5	1
Gold Creek Lake	13C10	7200	14	8N	12W		3,4	1
Heart Lake Trail	14C10	6800	11	14N	27W		1,2,3,4,5,5½,6	1
Hoodoo Basin	15C10	6000	17	14N	27W		1,2,3,4,5,5½,6	1
Hoodoo Creek	15C01	5900	16	14N	27W		1,2,3,4,5,5½,6	1
Intergaard	13C04	6450	6	5N	13W		2,3,4,5	4
Lower Willow Creek	13C15	6740	3	9N	14W	P,NSC	Monthly	1
Lubrecht Camp	13C14	4100	11	13N	15W	M,NSC	Monthly	8
Lubrecht Flume	13C38	4680	13	13N	16W	S,P	1,2,3,4,5	8
Lubrecht Forest No. 3	13C21	5450	19	13N	14W		1,2,3,4,5	8
Lubrecht Forest No. 4	13C22	4650	23	13N	15W		1,2,3,4,5	8
Lubrecht Forest No. 6	13C08	4040	11	13N	15W		1,2,3,4,5	8
Lubrecht Hydroplot	13C37	4200	22	13N	14W		1,2,3,4,5	8
North Fork Elk Creek	13C31	6250	20	13N	13W	S,P	1,2,3,4,5,5½,6	8
Ophir Park	12C16	7150	13	11N	8W		1,2,3,4,5	11
Peterson Meadows	13C36	7200	2	4N	14W	S,P	1,2,3,4,5	2
Red Lion	13C12	7100	22	6N	13W		3,4,5	1
Seeley Lake R. S.	13B19	4030	21	17N	15W	M,NSC	Monthly	2
Skalkaho Summit	13C03	7260	30	6N	17W	P,M	3,4,5,5½,6	1
Slide Rock Mountain	13C02	7100	35	10N	16W		3,4,5	1
Storm Lake	13C07	7780	19	4N	13W		1,2,3,4,5	2
Stuart Mill	13C06	6500	19	5N	13W		2,3,4	4
Stuart Mountain	13C01	7400	6	14N	18W		3,4,5,5½,6	8
Susarloaf	12C18	7350	13	7N	8W		3,4	2
TV Mountain	14B01	6800	33	15N	19W		1,2,3,4,5,5½,6	8

BITTERROOT RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Ambrose	13C16	6480	28	9N	18W		3,4,5	1
East Fork R. S.	13D01	5400	16	2N	17W		3,4	1
Gibbons Pass	13D02	7100	4	2S	19W	M	1,2,3,4,5,5½,6	1,3
Lolo Pass	14C05	5250	11	10N	24W	M	1,2,3,4,5	1,2
Lost Horse	14C07	5940	5	4N	23W		3,4,5,5½,6	1
Nez Perce Camp	14D02	5580	19	1S	23W		3,4,5	1
Nez Perce Pass	14D01	6570	25	1S	24W		3,4,5	1
Saddle Mountain	13D22	7940	5	2S	19W	S,P	1,2,3,4,5,5½,6	1
Twelvemile Creek	14C13	5600	34	5N	23W	S,P	1,2,3,4,5,5½,6	1
Twin Lakes	14C08	6510	32	5N	23W	S,P	1,2,3,4,5,5½,6	1

HUDSON BAY BASIN

ST. MARY RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Hudson Bay Divide	13A18	5800	24	34N	14W		3,4,5	3,9
Iceberg Lake No. 3	13A03	5600	1	35N	17W		5	3,9
Josephine Lower No. 9	13A14	4900	22	35N	16W		5	3,9
Mount Allen No. 7	13A07	5700	27	35N	16W		5	3,9
Pitegan Pass No. 6	13A06	5500	27	35N	16W		5	3,9
Ptarmigan No. 8	13A08	5800	36	36N	17W		5	3,9

MISSOURI RIVER BASIN

BEAVERHEAD RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Bloody Dick	13D10	7600	12	8S	16W		3,4,5	1
Carter Creek	12D04	7400	22	8S	7W		2,3,4	11
Christensen Ranch	12D06	6000	34	7S	7W	P,NSC	Monthly	11
Dad Creek Lake	13E22	8400	24	12S	13W		3,4,5	1
Elk Horn Springs	13D15	7800	21	4S	12W		3,4,5	3
Gold Stone	13D09	8100	11	8S	16W		3,4,5	1
Lakeview	11E13	6700	23	14S	2W	M,NSC	Monthly	10
Lakeview Canyon	11E04	6930	26	14S	2W		1,2,3,4,5	10
Lakeview Ridge	11E03	7400	27	14S	2W		1,2,3,4,5	10
Lemhi Pass	13E01	7480	9	10S	15W		3,4	1
Lemhi Ridge	13E23	8100	4	10S	15W	P	3,4	1
Trail Creek	13E02	7090	15	10S	15W		3,4	1
White Pine Ridge	12E01	8850	18	14S	9W		3,4,5	1

RUBY RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Branham Lakes	11D14	8850	5	4S	3W		3,4,5	1,12
Clover Meadow	11D08	8600	28	9S	2W		3,4,5	1
Divide	12E07	7800	14	12S	4W		3,4,5	1
Middle Mill Creek	11D15	7850	17	4S	3W		3,4,5	1,12
Notch	12E06	8500	18	11S	4W		3,4,5	1
Smuggler Mine	12D05	6960	24	4S	4W		3,4,5	1,12

BIG HOLE RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Abundance Lake	13D20	8800	7	3S	11W		3,4,5	1
Bull Mountain	12D08	7500	3	1N	10W		1,2,3,4,5	2
Calvert Creek	13D26	6450	34	2N	16W	P	3,4,5	1
Darkhorse Lake	13D19	8600	4	8S	16W		3,4,5	1
Fleecer Ridge	12D07	6600	18	2N	9W		1,2,3,4,5	2
Foolhen	13D21	8280	11	1S	13W		3,4,5	1
Jahnke Lake Trail	13D27	7200	24	7S	16W		3,4,5	1
Mudd Lake	13D25	7650	24	2N	15W		3,4,5	1
Palisade Creek	13D23	8250	3	2N	15W		3,4,5	1
Slag-A-Melt Lake	13D24	8750	29	5S	17W		3,4,5	1

JEFFERSON RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Berry Meadow	12C07	7000	8	5N	5W		3,4	1
Copper Mountain	12C09	7700	13	3N	7W		2,3,4,5,5½	4
Nez Perce Creek	12C10	6500	16	4N	6W		2,3,4,5	4
Picnic Grounds	12C06	6500	21	5N	6W		2,3,4	4
Pipestone Pass	12D01	7200	10	1N	7W		1,2,3,4,5	4
Rocker Peak	12C11	8000	17	7N	5W	S,P	1,2,3,4,5	1

MADISON RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Black Bear	11E35	7950	27	15S	5E	S,P	1,2,3,4,5,5½,6	1,2
Gail Road	11D07	8050	21	8S	2W		3,4,5	1
Four Mile	11D12	6900	5	4S	2W	P	3,4,5	1
Hebgen Dam	11E05	6550	22	11S	3E		1,2,3,4,5	3
Jack Creek	11D05	7500	13	6S	1E		3,4	1
Lake Creek	11E22	6100	27	11S	1E		2,3,4,5	1,2
Lower Twin	11D11	7900	12	4S	3W		3,4,5	1
Madison Plateau	11E31	7750	28	14S	5E	S,P	1,2,3,4,5,5½,6	1,2
North Meadow	11D03	7500	24	3S	3W		3,4,5	1
Potomageton Park	11E21	7150	33	10S	3E		3,4,5	2
Sentinel Creek	11E20	8300	17	10S	3E		3,4,5	2
Tepee Creek	11E24	8000	15	12S	1W	S	2,3,4,5	1,2
West Yellowstone	11E07	6700	34	13S	5E	M	1,2,3,4,5	1,3,6
Whiskey Creek	11E30	6800	19	14S	5E	S,P	1,2,3,4,5,5½,6	2

GALLATIN RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Arch Falls	10D14	7350	3	5S	6E		1,2,3,4,5,5½,6	1
Bear Basin	11D09	8150	9	6S	3E		3,4,5	1
Big Sky	11D17	7700	30	6S	3E	P	1,2,3,4,5	1
Bridger Bowl	10D15	7250	25	1N	6E	S,P,M	1,2,3,4,5,5½,6	1
Carrot Basin	11E29	9000	18	10S	4E	S	1,2,3,4,5	2
College Site	11D02	6856	18	2S	5E	M,NSC	Weekly	7
Davis Slide	10D04	8100	14	5S	6E		1,2,3,4,5,5½,6	1
Hood Meadow	10D03	6600	22	4S	6E		1,2,3,4,5,5½,6	1
Lick Creek	10D13	6860	10	4S	6E	S,P,M	1,2,3,4,5,5½,6	1
Little Park	11D10	7400	22	6S	3E		3,4,5	1
Maynard Creek	10D18	6210	19	1N	7E	S,P	1,2,3,4,5,5½,6	1
New World	10D01	6700	24	3S	6E		2,3,4	1
Shower Falls	10D16	8100	14	5S	6E	S,P	1,2,3,4,5,5½,6	1
Taylor Peaks	11D13	8500	26	9S	2E	S,P	4	1
Twenty-One Mile	11E06	7150	1	11S	5E	M	1,2,3,4,5	3

MISSOURI RIVER MAIN STEM

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Big Coulee	10B03	5100	10	19N	9E		1,2,3,4,5	1,12
Boulder Mountain	11C01	7950	1	9N	3E		3,4,5	1
Cheesman Reservoir	12C05	6200	2	8N	5W		1,2,3,4,5	3
Deadman Creek	10C09	6450	23	12N	8E	S,P	1,2,3,4,5,5½,6	1
Elk Peak	10C07	8000	10	8N	8E		3,4,5	1
Frohner Meadows	12C13	6480	23	8N	5W	S,P	1,2,3,4,5	1
Grasshopper	10C02	7000	19	9N	8E		3,4,5	1
Highwood Divide	10B02	5650	16	19N	9E	P	1,2,3,4,5	1,12
Highwood Station	10B01	4600	20	20N	9E	P	1,2,3,4,5	1,12
Kings Hill	10C01	7500	34	13N	8E	M	3,4,5,5½,6	1,3
Steeple Pass	12C01	6600	16	13N	7W	M	3,4,5	1,3
Ten Mile Lower	12C02	6600	12	8N	6W		1,2,3,4,5	3
Ten Mile Middle	12C03	6800	13	8N	6W		1,2,3,4,5	3
Ten Mile Upper	12C04	8000	19	8N	5W		1,2,3,4,5	3

TETON - MARIAS RIVERS

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Badger Pass	13A15	6900	4	27N	11W	A	1,2,3,4,5	1
Blue Lake	13A20	5900	25	28N	11W	A	1,2,3,4,5	1
Cabin Creek	12B06	5200	33	23N	10W		3,4,5	2
Five-Bull	12B09	5700	25	20N	10W		3,4,5	1
Freight Creek	12A01	6000	13	26N	10W		3,4,5	1
Goat Mountain	12B07	7000	20	22N	10W		3,4	2,3
Marias Pass	13A05	5250	31	30N	13W	M	1,2,3,4,5	3,6
Mount Lockhart	12B12	6400	18	25N	9W		1,2,3,4,5,5½,6	2
Waldron	12B13	5600	17	25N	9W		1,2,3,4,5,5½,6	2
Wrong Creek	12B04	5700	32	25N	10W		3,4,5	2
Wrong Ridge	12B03	6800	17	25N	10W		3,4,5	2

JUDITH RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Avalanche	9C02	7100	24	12N	17E		3,4,5	1
Big Snowy	9C05	7150	25	12N	17E		3,4,5	1
Crystal Lake	9C01	6100	19	12N	18E		3,4,5	1
Rock Creek	9C03	5600	2	12N	18E		3,4,5	1
Spur Park	10C06	8100	20	12N	9E		1,2,3,4,5,5½,6	1
Wilcox Ranch	9C06	5300	17	13N	18E	P,NSC	Monthly	1

MUSSELSHELL RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Daisy Peak	10C15	7600	34	11N	11E		3,4,5	2
Eagle Creek	10C13	7000	2	9N	10E		3,4,5	2
Forest Lake	10C14	6400	26	6N	10E		3,4,5	2
Haymaker	10C11	8050	16	11N	12E		3,4,5	2
Johnson Park	10C12	6450	16	10N	11E		3,4,5	2

MILK RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Beaver Creek	9A05	3950	21	29N	16E	M,NSC	Monthly	1,7
Bear Paw Ski Area	9A02	5200	21	28N	16E	P	1,2,3,4,5	1,7
Boxelder Creek	9A08	5100	24	28N	16E	P	1,2,3,4,5	1,7
King Creek Saddle	8A02	4550	10	25N	24E		1,2,3,4,5	5
King Springs	8A03	4150	9	25N	24E		1,2,3,4,5	5
Kiwanis Camp	9A04	3720	9	29N	16E	P,W,T	1,2,3,4,5	1,7
Mission Mountain	8A01	5050	15	25N	24E	P	1,2,3,4,5	5
Rocky Boy	9A01	4700	22	28N	1[illegible]E	S,P,M	1,2,3,4,5	1,7
Sucker Creek	9A06	3960	11	29N	16E	P	1,2,3,4,5	1,7
Taylor Road	9A07	4080	19	29N	16E	P	1,2,3,4,5	1,7

UPPER YELLOWSTONE RIVER

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Sensors in Addition to Snow Courses 1/	Measuring Dates 2/	Meas. By 3/
Battle Ridge	10D11	6020	32	2N	7E	A	1,2,3,4,5	1
Bald Ridge	10C05	7500	11	6N	10E		3,4,5	1
Bota Sota	9N14	7750	35	7S	18E		3,4,5	1
Brass Monkey	10D29	9050	6	5S	14E	P,NSC	Seasonally	11
Camp Senia	9D01	7090	2	9S	18E		3,4,5,5½,6	1
Cole Creek	9N15	7450	26	2S	19E	S,P	1,2,3,4,5,5½,6	1,2
Colter Creek	10D30	6300	34	6S	10E		3,4,5	1
Cooke Station	9D07	8150	19	9S	15E		3,4,5,5½,6	1,2
Crevice Mountain	10D05	8400	22	9S	9E		3,4	2
Fisher Creek	9D06	9100	11	9S	14E	S,P	1,2,3,4,5,5½,6	1,2
Grizzly Peak	9D05	8400	26	7S	19E		1,2,3,4,5	1,5
Independence	10D06	7850	21	7S	12E		3,4,5	1
Mill Creek	10D19	7500	6	5S	11E	P	3,4,5	2
Monument Peak	10D12	8800	16	5S	12E		3,4,5	1
Northeast Entrance	10D07	7400	33	9S	14E	S,P,M	1,2,3,4,5,5½,6	1,6
Picket Pin Lower	9D13	8200	1	5S	14E	P	1,2,3,4,5	13
Picket Pin Middle	9D12	7250	3	5S	14E		1,2,3,4,5	13
Picket Pin Upper	10D28	8100	32	4S	14E	P	1,2,3,4,5	13
PMC Dryland	8D02	3700	35	6S	23E	M,NSC	Monthly	1
PMC Headquarters	8D01	3656	34	6S	23E	P,M,T,NSC	Daily	1
Porcupine R. S.	10C03	6500	10	6N	10E		3,4,5	1
Sacajawea	10D10	6550	36	2N	6E		3,4,5	1
Silver Run	9D18	6630	11	8S	10E		3,4,5	1
South Fork Shields	10C08	8100	13	6N	10E		3,4,5	1
Timberline Creek	9D06	8850	10	8S	18E		3,4,5,5½,6	1
West Rosebud	9D02	7500	9	7S	16E		3,4	4
White Mill	9D08	8700	18	9S	15E	S,P	3,4,5,5½,6	1,2
Willow Creek	9D17	6500	31	7S	20E		1,2,3,4,5	1,2

LEGEND

1/ Blank refers to snow course only at site
S = snow pillow also
P = precipitation gage also
M = soil moisture gage also
T = max-min temperature also
W = wind run also
A = aerial marker also
NSC = no snow course at site

2/ Numerals 1,2,3,4,5,5½,6 refer to snow course or aerial marker measurements on January 1, February 1, March 1, April 1, May 1, May 15, and June 1. Most snow pillows, temperature, and wind run are daily readings, most precipitation gages and soil moisture are read monthly.

3/ Numerals refer to agency making the snow surveys as follows:

1. Soil Conservation Service
2. Forest Service
3. Geological Survey
4. Montana Power Company
5. Bureau of Indian Affairs
6. National Park Service
7. NSF Agricultural Experiment Station
8. University of Montana School of Forestry
9. Department of Energy, Mines and Resources
10. Bureau of Sports Fisheries and Wildlife
11. Private Cooperator
12. Montana Association of Conservation Districts
13. Montana Department of Fish and Game

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Agencies and Organizations Cooperating in Montana Snow Surveys

GOVERNMENT AGENCIES

Canada:

Water Survey of Canada, Calgary, Department of the Environment
Water Resources Service, Department of Lands, Forests and Water Resources, British Columbia

Federal:

Department of the Army
- Corps of Engineers

U.S. Department of Agriculture
- Forest Service
- Soil Conservation Service

U.S. Department of Commerce
- NOAA, National Weather Service

U.S. Department of the Interior
- Bonneville Power Administration
- Bureau of Indian Affairs
- Bureau of Reclamation
- Fish an Wildlife Service
- Geological Survey
- National Park Service

STATE

Montana Association of Conservation Districts
Montana Department of Fish and Game
Montana Department of Natural Resources and Conservation
Montana State University - Agricultural Experiment Station
North Montana Branch Station - Agricultural Experiment Station
University of Montana - School of Forestry

PRIVATE

Montana Power Company

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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